TITLE:

Use of phenylpyrimidines as protecting agents for crop plants against phytotoxic damage caused by herbicides Burdeska, Kurt; Kabas, Guglielmo; Brunner, Hans Georg;

Foery, Werner

PATENT ASSIGNEE(S): SOURCE:

Ciba-Geigy A.-G. , Switz. Eur. Pat. Appl., 98 pp.

DOCUMENT TYPE:

INVENTOR(S):

Patent

CODEN: EPXXDW

LANGUAGE:

German FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PAT	TENT NO.			KIN	)	DATE		PLICATION NO.		DATE	
					-						
	55693			A1			EP	1981-810505		19811217	<
	55693			B1		19880120					
						GB, IT,					
	159209			A1		19870411		1981-DE784			
	32065			T				1981-810505		19811217	
	1220953							1981-392824			
	64612			A		19880930		1981-64612		19811221	
DK	8105712			A		19820624	DK	1981-5712		19811222	<
DK	156687			В		19890925					
DK	156687			C		19900312					
ZA	8108852			A		19821229	ZA	1981-8852		19811222	<
DD	202798			A5		19831005	DD	1981-236096		19811222	<
HU	27801			A2		19831128	HU	1981-3912		19811222	<
HU	191339			В		19870227					
CS	243465			B2		19860612	CS	1981-9672		19811222	<
SU	1482505			A3		19890523	SU	1981-3369450		19811222	<
ΑU	8178840			A		19820701	AU	1981-78840		19811223	<
ΑU	558710			B2		19870205					
JP	57131702			А		19820814	JP	1981-208971		19811223	<
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	8108383			A		19821013	BR	1981-8383		19811223	<
	83451			A1		19840221		1981-106092		19811223	
	130575					19840831		1981-234418		19811223	
	61246102			A		19861101		1986-68237		19860326	
	02053402			В		19901116	0.	1300 00137		130000520	•
RITY APPLN. INFO.:			_		15501110	СН	1980-9522	20.	19801223	<	
		11120						1981-2363			
								1981-810505			
							nP.	1301-010303	A	12011211	<

OTHER SOURCE(S): MARPAT 97:158036

ED Entered STN: 12 May 1984

AB

PR.

$$\sum_{N=1}^{R_{\Omega}} \mathbb{R}^{2}$$

The phenylpyrimidines I (R = H, alkyl, halo, NO2, CF3, etc.; R1 = H, halo, SOMe, OMe, etc.; R2 = H, Me, Ph, NMe, OEt, etc.; R3 = H, halo, OEt, NHMe, SEt, etc.; n = 1-5) are herbicide antidotes. Thus, post-transplant application of

2-phenyl-4-chloropyrimidine [3740-92-9] (1 kg/ha) protected rice against the phytotoxic activity of pretilachlor [51218-49-6] (1 kg/ha) by 50%. The synthesis of I is given.

- IC C07D239-30; A01N025-32; C07D405-10
- CC 5-3 (Agrochemical Bioregulators)
- Section cross-reference(s): 28
- ΙT 1701-72-0P 3740-90-7P 3740-91-8P 3740-92-9P 13514-79-9P 14727-23-2P 15726-40-6P 17077-89-3P 17077-93-9P 20655-14-5P 21139-61-7P 21139-63-9P 26863-48-9P 26863-54-7P 26870-72-4P 29509-92-0P 29954-25-4P 72520-17-3P 77232-14-5P 77232-21-4P 79382-42-6P 77232-18-99 77232-19-09 77232-23-6P 77232-25-8P 79382-45-79382-48-2F 79382-43-72 79382-44-8P 79382-47-1P 79382-46-0P 79382-49-3P 79382-50-6P 79382-77-7P 79382-68-6P 79382-78-89 79382-82-49 79396-00-2P 83063-00-7P 83063-01-8P 83216-81-3P 83216-82-4P 83216-83-5P 83216-84-6P 83216-85-7P 83216-86-89 83216-87-9P 83216-88-0P 83216-93-7P 83216-94-8P 83216-92-6P 83216-97-1P 83216-95-9P 83216-96-0P 83216-98-2P 83217-01-0P 83216-99-3P 83217-00-9P 83217-02-1P 83217-03-2P 83217-04-3P 83217-05-4P 83217-06-5P 83217-07-6P 83217-08-7P 83217-09-8P 83217-10-1P 83217-11-2P 83217-12-3P 83217-13-4P 83217-14-5P 83217-15-6P 83217-16-7P 83217-17-8P 83217-18-9P 83217-19-0P 83217-20-3P 83217-21-4P 83217-22-5P 83217-23-6P 83217-24-7P 83217-25-8P 83217-26-9P 83217-27-0P 83217-28-1P 83217-29-2P 83217-30-5P 83217-31-6P 83217-32-7P 83217-33-8F 83217-34-9P 83217-35-0P 83217-36-1P 83217-37-2P 83217-38-3P 83217-39-4P 83217-40-7P 83217-41-8P 83217-42-9P 83217-43-0P 83217-44-1P 83217-45-2P 83217-46-3P 83217-47-4P 83217-48-5P 83217-49-6P 83217-50-9P 83217-51-0P 83217-52-1P 83217-53-2P 83217-54-3P 83217-55-4P 83217-56-5P 83217-57-6P 83217-58-7P 83217-59-8P 83217-60-1P 83217-61-2P 83217-62-3P 83217-63-4P 83217-64-5P 83217-65-6P 83217-66-7P 83217-67-8P 83217-68-9P 83217-69-0P 83217-70-3P 83217-71-4P 83217-72-5P 83217-75-8P 83217-76-9P 83217-73-6P 83217-74-7P

RL: AGR (Agricultural use); <u>BAC (Biological activity or effector, except adverse)</u>; BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicide-antidote activity of)

ΙT	72520-17-3P	77232-14-5P	77232-18-9P
	77232-19-02	77232-21-4P	77232-23-6P
	79382-42-6P	79382-43-7P	79382-44-8P
	79382-46-0P	79382-47-1P	79382-48-2P
	19382-40-02	19302-41-12	13302~40~28
	79382-49-3P	79382-50-6P	79382-51-78
	m p o o o m o	W. C. C. C. C. C.	
	79382-78-8P	79382-82-4P	83216-84-6P
	83216-85-79	83216-86-8P	83216-87-9P
	02570~02~15	92510-00-05	0.32.10-07-92
	83216-88-0P	83216-92-6P	83216-93-7P
	the control of the co	***************************************	***************************************
	83216-94-8P	83216-98-2P	83216-99-3P
	83217-00-9P	83217-01-0P	83217-02-1P
	03227-00-32	03627-02-02	0.32.27 02 22
	83217-03-2P	83217-04-3P	83217-33-8P
	00000 05 40	***************************************	***************************************
	83217-71-4P		

RL: AGR (Agricultural use); BAC (Biological activity or effector,

except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicide-antidate activity of)

RN 72520-17-3 HCAPLUS

CN Pyrimidine, 4-methoxy-6-methyl-2-phenyl- (CA INDEX NAME)

RN 77232-14-5 HCAPLUS

CN Pyrimidine, 4,6-dimethoxy-2-(4-methylphenyl)- (CA INDEX NAME)

RN 77232-18-9 HCAPLUS

CN Pyrimidine, 4,6-diethoxy-2-(4-methylphenyl)- (CA INDEX NAME)

RN 77232-19-0 HCAPLUS

CN Pyrimidine, 2-(4-methylphenyl)-4,6-dipropoxy- (CA INDEX NAME)

RN 77232-21-4 HCAPLUS

CN Pyrimidine, 4-chloro-2-(4-methylphenyl)-6-phenyl- (CA INDEX NAME)

RN 77232-23-6 HCAPLUS

CN Pyrimidine, 4-methoxy-2-(4-methylphenyl)-6-phenyl- (CA INDEX NAME)

$${\rm Me\,O} = {\rm Ne\,O}_{\rm Me}$$

RN 79382-42-6 HCAPLUS

CN Pyrimidine, 4,6-bis(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 79382-43-7 HCAPLUS

CN Pyrimidine, 2-(4-methylphenyl)-4,6-diphenoxy- (CA INDEX NAME)

RN 79382-44-8 HCAPLUS

CN Pyrimidine, 4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 79382-46-0 HCAPLUS

CN 4-Pyrimidinamine, 6-(2-methoxyethoxy)-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

- RN 79382-47-1 HCAPLUS
- CN 4-Pyrimidinamine, N,N-diethyl-6-(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

- RN 79382-48-2 HCAPLUS
- CN 4-Pyrimidinamine, 6-chloro-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

- RN 79382-49-3 HCAPLUS
- CN 4-Pyrimidinamine, 6-chloro-N,N-diethyl-2-(4-methylphenyl)- (CA INDEX NAME)

- RN 79382-50-6 HCAPLUS
- CN Pyrimidine, 4,6-bis(ethylthio)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 79382-51-7 HCAPLUS

CN Pyrimidine, 4,6-dibutoxy-2-(4-methylphenyl)- (CA INDEX NAME)

RN 79382-78-8 HCAPLUS

CN Pyrimidine, 4-methoxy-6-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 79382-82-4 HCAPLUS

CN Pyrimidine, 4-methyl-2-(4-methylphenyl)-6-phenoxy- (CA INDEX NAME)

RN 83216-84-6 HCAPLUS

CN Pyrimidine, 4-chloro-6-methoxy-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-85-7 HCAPLUS

CN Pyrimidine, 4-chloro-6-methoxy-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-86-8 HCAPLUS

CN Pyrimidine, 4-chloro-6-(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-87-9 HCAPLUS

CN Pyrimidine, 4-chloro-2-(4-methylphenyl)-6-phenoxy- (CA INDEX NAME)

RN 83216-88-0 HCAPLUS

CN 4-Pyrimidinamine, 5-bromo-6-chloro-N-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-92-6 HCAPLUS

CN 4-Pyrimidinamine, N,N,6-trimethyl-2-phenyl- (CA INDEX NAME)

RN 83216-93-7 HCAPLUS

CN 4-Pyrimidinamine, N,N,6-trimethyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-94-8 HCAPLUS

CN 4-Pyrimidinamine, 5-bromo-N,N,6-trimethyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-98-2 HCAPLUS

CN Pyrimidine, 4,6-dimethoxy-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83216-99-3 HCAPLUS

CN Pyrimidine, 4,6-dimethoxy-2-(4-methylphenyl)-5-phenyl- (CA INDEX NAME)

RN 83217-00-9 HCAPLUS

CN Pyrimidine, 5-bromo-4,6-bis(1-methylethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83217-01-0 HCAPLUS

CN Pyrimidine, 4,6-bis(2-methoxyethoxy)-5-methyl-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83217-02-1 HCAPLUS

CN Pyrimidine, 5-chloro-4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83217-03-2 HCAPLUS

CN Pyrimidine, 5-bromo-4,6-bis(2-methoxyethoxy)-2-(4-methylphenyl)- (CA INDEX NAME)

RN 83217-04-3 HCAPLUS

CN 4-Pyrimidinamine, 5-bromo-6-(2-methoxyethoxy)-N-methyl-2-(4-methylphenyl)(CA INDEX NAME)

RN 83217-33-8 HCAPLUS

CN Phenol, 2-bromo-4-[4-chloro-6-(2-propen-1-yloxy)-2-pyrimidinyl]- (CA INDEX NAME)

RN 83217-71-4 HCAPLUS

CN 4-Pyrimidinol, 6-chloro-2-(4-methylphenyl)-, 4-acetate (CA INDEX NAME)